

Application No.: 10/620,176

REMARKS

In the December 21, 2005 Advisory Action, the Examiner stated that Applicants did not make any arguments directly refuting the Examiner's May 4, 2005 rejection of claim 28. However, in the December 1, 2005 Response, Applicants had amended claim 17 to incorporate the features of claim 28. The specified index of refraction change incorporated into claim 17 from claim 28 was included to eliminate any possible inherency issue with regard to an index variation along the irradiation direction in Payne.

Applicants pointed out that Payne (U.S. Patent No. 6,160,944) does not disclose a feature of claim 17, specifically irradiating a photosensitive optical material to induce a gradient index-of-refraction along an irradiation direction. Rather, Payne teaches irradiating a film to introduce a non-cyclic refractive index variation along a length of a waveguide. As stated, the specified index of refraction change incorporated into claim 17 (the gradient being at least about  $1 \times 10^{-8}$  index units per micron) was included to eliminate any possible inherency issue with regard to an index variation along the irradiation direction in Payne. Applicants' amendment does not change the fact that the teachings of Payne relate to a refractive index variation along a length of a waveguide, not a gradient index-of-refraction along an irradiation direction.

As such, Applicants maintain that Payne does not teach or suggest all of the features included in claim 17, as amended. Furthermore, these comments should address all pending issues relating to features of claim 28.

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The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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